

## Dealing With Skunks

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This NebGuide describes the most common skunks found in Nebraska, how to remove them, and prevent or manage the damage they can cause.

### Skunk Biology

Two species of skunks reside in Nebraska, the eastern striped skunk (*Mephitis mephitis*) (Figure 1) and the eastern spotted skunk (*Spilogale putorius*). The spotted skunk is sometimes called a “civet cat” because of its similarity to the Old World civet, but it is not related to either true civets or cats.

The striped skunk is about the size of a large domestic cat, while the spotted skunk is half that size. Spotted skunks are better climbers than striped skunks. In most other respects, the two species are similar. Since spotted skunks are protected in Nebraska, this Nebguide will focus on the striped skunk. Contact Nebraska Game and Parks Commission for information on options for controlling problem spotted skunks.

Striped skunks are found throughout Nebraska in agricultural areas, woodlands, and urban areas. They prefer to den in sheltered areas under lumber piles, stumps, decks, and porches located near waterways, hayfields, and pastures where food may be found. Entrances are typically 3 to 4 inches in diameter with little to no grass growing around the opening (Figure 2). Don’t assume den sites will smell “skunky.” Skunks do not emit the odor unless they spray.

Skunks are usually active from dusk to dawn. They dine on insects and their ground dwelling larvae, such as crickets, grasshoppers, beetles, and cutworms. While humans appreciate the pesticide free insect control, they are frequently annoyed



Figure 2. Hole entrance with twigs in front to test for animal use.



Figure 1. Eastern striped skunk (*Mephitis mephitis*).

by the small holes that skunks dig in their search for these insects. Skunks also eat animals deemed pests, such as mice, rats, shrews, moles, ground squirrels, other small mammals.

Skunks do not hibernate but will remain in their dens for days and even weeks during frigid temperatures. During this time, they must rely on stored body fat. Several skunks may share winter quarters to conserve body heat.

In Nebraska, mating occurs mid-February to mid-March. Males will travel up to five miles in one night in search of a female. Males are not always successful in their quest, as they frequently are struck by cars during this time. Even if a female is located, she may refuse his advances by spraying him. A litter of 4 to 6 pups will be born about 63 days after mating. She will raise the young by herself, taking them on hunting trips when they mature enough to accompany her. Young strike out on their own in the fall.

Skunks that cause no problems or are not valued for their fur should be left alone because of their important role in Nebraska’s ecosystem.

### Skunk Odor, Damage, and Health Risks

#### Odor

Skunks are famous for their noxious spray that is produced by two internal glands located around the anus. The thick, volatile, oily liquid obtains its pungency from sulfur-based thiols contained in the oil. The odor is noticeable up to a mile away. Fortunately, skunks do not like the odor any more than humans. Healthy skunks spray only when they feel threatened. If not caught by surprise, skunks will often stamp their front feet, growl, and/or hiss as a warning to potential victims. They may also walk a short distance on their front feet with their tail

erect. When skunks exhibit any of these behaviors, slowly back away, as it is likely a prelude to a release of scent. When the tail is raised, a skunk can discharge a stream of liquid or a mist. The spray can be directed accurately up to 10 feet, and with less accuracy up to 20 feet from 1 or both glands. Skunks can spray several times within a short period. The fluid will irritate eyes and can cause temporary blindness for 15 minutes or longer.

If you live in an area with a high skunk population, a few simple precautions will dramatically reduce the chances of being sprayed. First, observe the recommendations on preventing skunks from living on your property listed under Exclusion below. Second, when it is dark, let foraging skunks know you are coming by turning on exterior lights and by making noise, such as whistling.

Odor that persists for several days, increases in intensity, or is especially acrid suggests that skunks may be present nearby. Look for half-moon depressions under sheds, porches, decks, and crawlspaces. Active burrows will be grass-free and 3 to 5 inches in diameter. Carefully check window wells for trapped skunks. Finally, keep in mind that skunks occasionally die around structures. In those situations, the odor can become quite severe as the carcass decomposes. Relief will only be obtained through removal of the carcass and treating the contaminated soil surrounding it. The NebGuide, "Removing Skunk Odor" contains instructions on eliminating skunk odor, (<http://www.ianrpubs.unl.edu/sendIt/nf646.pdf>).

Humans have created a number of myths related to skunk spray. Some are comical but others are potentially dangerous. The following points contradict the more common myths: 1. skunks can spray when their feet are on the ground or not, 2. skunks do not disperse the spray by shaking their tails, and 3. a covered trap only reduces the likelihood of skunks spraying ... it does not prevent them.

### **Rabies**

Although rabies can infect any warm-blooded creature, skunks are particularly susceptible to the disease. In 2006, skunks comprised about 44 percent of all positive rabies results of animals submitted for testing in Nebraska. Infected skunks transmit rabies to other animals or humans through bites or direct contact with the skunk's saliva into a fresh wound, into the eyes, nasal membranes, or mouth (skunk spray is not considered a rabies exposure). When skunk numbers are high, the chances are greater for rabies to be spread within the population. Rabies is also more likely to spread to other animals, such as pets, livestock, and humans. Despite the potential risk, it is not appropriate to indiscriminately kill skunks as only a small percentage of skunks will be infected.

Clinical signs of rabies include docility, aggression, wandering, listlessness, salivation, and tremors. However, it is impossible to diagnose rabies using visual signs as these behaviors are also clinical signs of other diseases. In addition, an infected animal can look perfectly normal and healthy. Clinical signs of the infection occur quite late in the rabies lifecycle. Skunks that are exposed to the rabies virus may not show visual symptoms for weeks or even months, as the virus may become sequestered. Stresses such as fighting, sexual maturity, and environmental change may trigger the clinical disease. This delayed rabies potential underlies the importance of not keeping skunks, even young ones, as pets. Skunks observed during the daylight are considered by public health officials to be acting abnormally and as a result are a threat to transmit rabies.

The best way to avoid rabies exposure is to avoid skunks. Parents should warn children to never approach pet skunks or other wild animals. The motto should be "If you care, leave

them there." If an animal appears injured, contact your local animal control office. Vaccinate dogs, cats, and livestock against rabies. People in high-risk occupations (field biologists, animal controllers, veterinarians) should consider pre-exposure vaccinations.

In case of skunk bite:

- Scrub the wound with warm water and soap for at least 20 minutes.
- Apply an iodine first aid solution or cream.
- Seek medical attention.
- If possible, capture the animal. Trapping is not very effective in capturing sick skunks so shooting may be necessary. Do not damage the animal's brain as health officials need the brain tissue to test for the virus.
- Avoid direct contact with the carcass and its body fluids by wearing latex or vinyl gloves.
- Use a shovel and place the carcass in two plastic bags sealed to prevent any leaks.
- Contact your local veterinarian or animal control official.
- If there will be a significant time delay in preparing and shipping the carcass, keep it cool or frozen in a disposable cooler. Disinfect equipment with a bleach solution diluted at a rate of 1 part bleach to 9 parts water or by spraying with Lysol®.

### **Rabies Consultation and Testing**

In the event of an animal exposure, your veterinarian can assist you in evaluating the potential risk to your pet or livestock. All pets must be vaccinated against rabies and livestock should be where threats are high. Regarding human exposures, consult your physician or Nebraska State Department of Health and Human Services 24-hour hotline at 402-471-2937. Skunks involved in an exposure need to be packaged and shipped for testing by qualified personnel, such as a veterinarian. Before shipping specimens, the preparer should contact the Nebraska State Department of Health and Human Services to confirm the need for testing. Submission guidelines, including costs, can be found at <http://www.vet.ksu.edu/depts/dmp/service/rabies/index.htm>. Additional information on rabies can be obtained in the Rabies NebGuide at <http://www.ianrpubs.unl.edu/sendIt/nf598.pdf>

### **Nebraska Laws Regarding Skunks and Their Control**

Nebraska law prohibits the possession of live skunks, primarily to reduce the prevalence of exposure and transmission of rabies. Striped skunks may be trapped or hunted year-round with a Nebraska fur-harvesters permit. Striped skunks that cause damage to agriculture or livestock may be controlled without a permit on land owned or controlled by that landowner. Like all furbearers in Nebraska, striped skunks may not be translocated more than 100 yards from point of capture due to disease issues. For answers regarding all other types of problems with striped skunks, contact the offices listed below.

The spotted skunk is considered a "species in need of conservation" in Nebraska with no open season. In those rare circumstances where spotted skunks are causing problems, contact a conservation officer (402-471-5531), or Nebraska Game and Parks Commission (NGPC) wildlife manager to discuss your options (402-471-0641), or visit <http://www.ngpc.state.ne.us/> for assistance.



**Figure 3.** Skunk damage to a lawn exhibits a collection of cone-shaped holes dug at the surface of the ground.

### Damage

Skunks prey upon poultry, eggs, garden vegetables, fruit, nesting waterfowl, game birds and their eggs. They can also damage beehives as in search of adult and larval bees. Aside from odor, most complaints regarding skunks stem from their digging cone-shaped holes in lawns for grubs and other insect larvae. (Figure 3). Damage to turf caused by raccoons is typically much more extensive with large chunks of sod being rolled and torn.

### Habitat Modification and Exclusion

Discourage the attractiveness of your property to skunks by removing brush piles, stacked lumber, wood piles, and similar sources of shelter. Skunks are easily excluded from decks, sheds, landscaped areas, gardens, poultry sheds, and other places by installing a simple fence. Obtain a 3-foot wide roll of 1/2-inch galvanized hardware cloth. Bury 1 side at least 3 inches below the ground surface, extending it 9 inches outward in an “L” shape to discourage skunks from digging underneath. Before digging, contact Diggers Hotline of Nebraska at 800-331-5666. Use the remaining 24 inches as your fence above the ground or secured to the base of the wall (whichever is shorter). Since spotted skunks are good climbers, use a 4-foot wide mesh and create a 6-inch wide overhang to stop climbing.

Reduce the availability of food by placing garbage and compost inside secure bins or trash cans. Feed and water pets indoors or provide them just enough for one feeding. Protect lawns through appropriate insect control. Control insects before damage begins as it is rarely effective at stopping skunks from digging. Consult your local Extension office for advice on proper insect control methods.

### Repellents

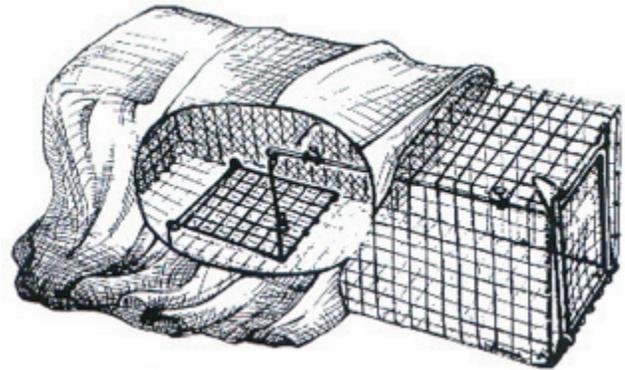
Mothballs (naphthalene or paradichlorobenzene), ammonia, lights, ultrasound, radios, or any other repellents have not been proven effective in repelling skunks on a consistent basis.

### Trapping

Trapping is very effective for controlling skunks. In Nebraska, fur harvest permits allow trappers to take striped skunks within season and to use or sell their fur. Steel foot-hold, body-grip, or snare traps are also effective in catching skunks, but are more regulated and require more experience for proper use. Before using such traps, check with the NGPC regarding current trapping regulations. These traps also increase the risk

of a skunk spraying. Therefore, place the traps away from and downwind of buildings.

Skunks can be caught easily in cage traps. Single-door cage traps should be at least 7x7x24-inches in size. Bait traps with sardines, fish-flavored cat food, chicken parts, or bacon. Milder baits, such as peanut butter, mayonnaise, or apples also work well and are less attractive to cats. Use an old blanket to cover the bait end of the trap, including walls and end, for at least half the trap’s length (Figure 4). The cover serves 2 purposes. First, it provides the skunk with shelter to get out of the sun, wind, rain, and snow. It also allows you to approach the trapped skunk without being seen. Ensure that the blanket will not interfere with the trap’s trigger mechanism. Once a skunk is captured, approach the trap slowly and quietly. Gently cover the remaining portion of the trap with another blanket. When kept in the dark, skunks are less fearful and less likely to spray. Avoid jostling the trap as the skunk may become frightened and spray. Although more expensive than cage traps, some people prefer box traps with solid walls, which are designed specifically for skunks. Spotted skunks are more easily provoked to spray than are striped skunks.



**Figure 4.** Cage trap with blanket over 50 percent of the trap.

When removing skunks living under a deck or shed, care should be taken to avoid securing the structure before all the skunks have been removed. Temporarily seal openings with newspaper or loose dirt to determine if the hole is still in use. Never secure a hole unless you are certain that it is no longer active. If the skunks are still there, they will simply clear the opening. Be aware that skunks may not leave their den every evening. Additionally, young skunks may use the den from April through August. Be sure all animals are out before sealing up the entrance. Mothers will return for their young. To reduce the risk of sealing skunks inside the structure, only perform exclusion work if the opening remains undisturbed for 5 consecutive days of good weather.

When all skunks have been excluded or removed, seal all entrances securely. Use 1/4-inch wire mesh or other durable material to close entrances. Follow the instructions for exclusion listed above to prevent skunks from re-inhabiting decks, sheds, and crawl spaces.

### Shooting

Since skunks are legally designated as furbearing animals, no hunting seasons are sanctioned. Skunks can be shot with firearms, however, to protect personal property or public health and safety. Skunks that are shot typically will release their scent so shooting should only be conducted in emergency situations or away from buildings and areas of human activity. See details below on shooting for euthanasia.

## Toxicants

No toxicants are registered for use in controlling skunks.

## Disposition

Skunks that cannot be released within 100 yards of the capture site, should be euthanized. They should not be released in another location because of the risk of rabies transmission. Never release a skunk that shows signs of aggression, tremors, lethargy, or salivation. Humanely dispose of a trapped skunk by placing the trap inside an airtight container, such as a trash can, that has a loose fitting lid. Use a cylinder of carbon dioxide gas and attached hose to fill the container with carbon dioxide. Since carbon dioxide is heavier than air, it displaces the oxygen out through the loose fitting lid. Skunks are very tolerant of carbon dioxide gas. Wait 20 minutes or longer for the skunk to succumb after the container is filled with gas. Monitor a skunk's breathing for at least 1 minute before determining it is dead. Look carefully as breathing can be light and intermittent. Err on the side of caution or be prepared for the likelihood of a skunk "waking up" at an inopportune time.

Shooting is another method of euthanasia. Unfortunately, there is no sure-fire way to shoot a skunk and guarantee an odor-free experience. Since skunks often release their odor when shot, avoid shooting skunks in areas where their odor may be a problem. To lessen the chance of a release of scent, use a low-report .22 caliber round such as a CB short or air-rifle. If rabies testing is not needed, aim for the brain, slightly above and behind the ear. Otherwise, aim for the heart-lung area. For detailed information on various euthanasia techniques, visit <http://icwdm.org/wildlife/euthanasia/default.asp>.

Dispose of carcasses carefully as they can still host contagious diseases as well as ticks and fleas. Handle carcasses with thick leather gloves to reduce the risk of being scratched and exposed to body fluids. For additional protection, wear latex or vinyl gloves inside leather gloves. Carcasses can be disposed of in four ways: aboveground, incineration, licensed landfill, and individual grave. Nebraska requires the following guidelines when using individual graves:

- unless one is certain the area lacks underground utilities, consult Nebraska Diggers Hotline (800-331-5666) before digging,
- carcasses must be covered by at least 24 inches of soil,
- burials should take place within 24 hours,
- grave sites must not contact surface or ground water and be at least 200 feet from any well used for potable water, and
- the number of individual graves must not exceed 100 per acre.

Further disposal information can be obtained at <http://icwdm.org/wildlife/carcasses.asp>.

## Special Control Problems

Occasionally, skunks become trapped in window wells or other depressions. Carefully lower one end of a cleated board (at least 6 inches wide) to the bottom to allow the animal to escape. Cleats should be about 6 inches apart. Avoid slopes steeper than 45 degrees as it may be too steep for a skunk to climb. If it does not climb out that night, it may be too weak or the board angle too steep. If trapping is not possible, then professional assistance may be required. Cover window and stairwells to prevent future entrapments.

Skunks found inside buildings should be allowed to leave on their own. Open doors to facilitate their escape. Use exclusion methods to keep skunks out of spaces below buildings and around homes and farms. Sturdy wire mesh (1/4-inch hardware cloth or similar materials) can be used to screen vents in houses and other structures. Tightly seal holes in foundations or under porches to prevent skunks from entering.

## Assistance with Problem Skunks

Contact specialists at the USDA-Wildlife Services office (402-434-2340) for assistance in dealing with skunks that are causing damage or threatening human health. USDA-Wildlife Services may be available for hands-on assistance in certain cooperating counties in Nebraska.

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